WHAT IS CLAIMED

1. An air conditioner system, comprising:

an upstanding, elongated housing having at least one vent; and

an ion generating unit positioned in said housing, including:

a first electrode;

a second electrode; and

a high voltage generator to provide a potential difference between said first and second electrodes;

wherein said first and second electrodes are removable, through an upper portion of said housing, from a resting position within said housing to a location external to said housing, to thereby allow said electrodes to be cleaned; and

wherein said first and second electrodes are returnable through said upper portion of said housing such that gravity will assist with return of said electrodes to the resting position within said housing.

2. The system of claim 1, wherein said at least one vent includes an inlet vent and an outlet vent; and wherein said first electrode is located proximate to said inlet, and said second electrode is located closer to said outlet than said first electrode, when said electrodes are in the resting position within said housing.

3. The system of claim 1, further comprising a user-liftable handle attached to said second removable electrode, said use-liftable handle accessible through an opening in said upper portion of said housing.

4. The system of claim 3, wherein said opening is through a top surface of said housing.

5. The system of claim 1, wherein said first and second electrodes are elongated along a direction of said elongated housing.

6. An air conditioner system, comprising:

an upstanding, elongated housing having an air inlet vent, and an air outlet vent;

an ion generating unit positioned in said housing, said ion generating unit including an electrode assembly;

a user-liftable handle secured to said electrode assembly, said handle accessible through an opening in an upper portion of said housing, to assist a user with lifting said electrode assembly out of said housing from a resting position within said housing; and

wherein said electrode assembly is returnable through said opening in said upper portion of said housing such that gravity will assist with return of said electrode assembly to the resting position within said housing.

7. The system of claim 6, wherein the electrode assembly includes at least one emitter electrode and at least one collector electrode.

8. The system of claim 7, wherein said ion generating unit further comprises a high voltage generator to provide a potential difference between said at least one emitter electrode and said at least one collector electrode when said electrode assembly is at the resting position within said housing.

9. An air conditioner system, comprising:

a housing having at least one vent; and

an ion generating unit positioned in said housing, including:

an emitter electrode array;

a collector electrode array; and

a high voltage generator to provide a potential difference between said emitter electrode array and said collector electrode array;

wherein at least one of said emitter and collector electrode arrays are removable, through an upper portion of said housing, from a resting position within said housing to a location external to the housing, to thereby allow for cleaning; and

wherein said removable at least one of said emitter and collector electrode arrays are returnable through the upper portion of the housing such that gravity will assist with return to the resting position within said housing.

10. The system of claim 9, further comprising a user-liftable handle secured to said removable at least one of said emitter and collector electrode arrays, said handle accessible through an opening in said upper portion of said housing, to assist a user with lifting said electrode assembly out of said housing from the resting position within said housing.

11. The system of claim 10, wherein said opening in said upper portion of said housing is through a top surface of said housing.

12. The system of claim 9, wherein:

said emitter electrode array includes at least one emitter electrode; and

said collector electrode array includes at least two collector electrodes.

13. The system of claim 12, wherein:

said emitter electrode array includes at least one emitter electrode; and

said collector electrode array includes at least two collector electrodes that in cross-section define an "L"-shape having a curved nose region, said "L"-shaped electrodes being disposed such that said curved nose regions face said at least one emitter electrode.

14. The system of claim 9, wherein said house is vertically elongated.

15. The system of claim 14, wherein the collector electrode array includes at least one vertically elongated collector electrode.

16. An air conditioning system, comprising:

an upstanding, vertically elongated housing having a vertical channel and at least one air vent allowing air to enter said vertical channel;

an ion generating unit positioned in said housing, including an electrode assembly to rest within said vertical channel; and

a handle secured to at least a portion of said electrode assembly to assist a user with lifting said at least a portion of said electrode assembly vertically out of said vertical channel.

17. An air conditioning system, comprising:

an upstanding, vertically elongated housing having at least one air vent;

an ion generating unit positioned in said housing, including:

at least one emitter electrode;

at least one collector electrode, elongated along a direction of elongation of said vertically elongated housing;

wherein at least one of said emitter and collector electrodes is vertically removable through an opening through a top portion of said housing such that a user can vertically lift said at least one of said emitter and collector electrodes out of said housing from a resting position within said housing; and

wherein said removable at least one of said emitter and collector electrodes is vertically returnable through said opening such that gravity will assist with return to the resting position within said housing.

18. An air conditioner system, comprising:

a housing having at least one vent; and

an ion generating unit positioned in said housing, including:

a first electrode;

a second electrode; and

a high voltage generator to provide a potential difference between said first and second electrodes;

wherein said first and second electrodes are removable, through an upper portion of said housing, from a resting position within said housing to a location external to said housing, to thereby allow said electrodes to be cleaned; and

wherein said first and second electrodes are returnable through said upper portion of said housing such that gravity will assist with return of said electrodes to the resting position within said housing.